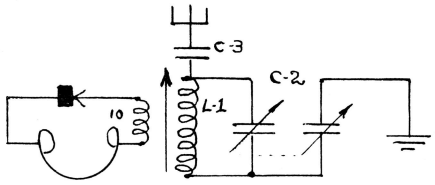
10 TESTED CRYSTAL SET CIRCUITS.

DP 21

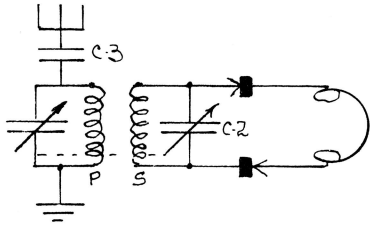
All following circuits have been shop-tested. Most have been altered from the original circuit for efficiency. Other different Xtal circuits may be seen in MRL Handbooks, Detail Prints, Data Sheets and other MRL literature described in our CATalog.

21-1. SELECTIVE LOOPSTICK XTAL.



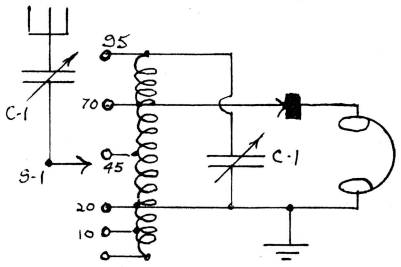
M. Bzowy, N.Y.C., sends this circuit for lots of selectivity. Use 10 Ts #32 Enam. over loopstick; more broadens stations. Pull core of loopstick out to tune below BC band. Uses 1N60 or 1N54 diode. More turns may be used if using Steel galana.

21-2. DUAL CRYSTAL SET.



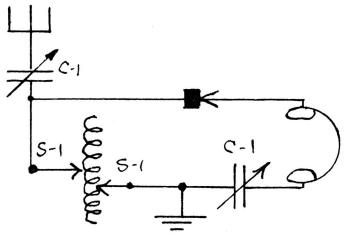
Stephen Rowe, N.Y., rigged a similar circuit. Two coils of 75 Ts #24 DCC, one over the other, and separated by paper, on 2" Cello. or Bak. form. Be sure to reverse Xtals. Primary circuit boosts and sharpens the signal.

21-3. VARIABLE ANTENNA TUNING.



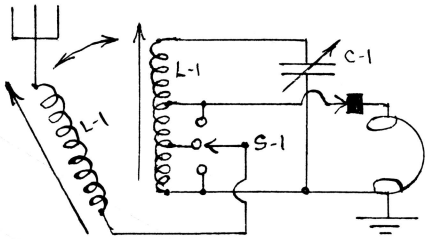
J.A.King, Md., has good results with a similar circuit. A coil of 95 Ts #22 DCC is wound on a 2" x 4½" Cello. form and taps taken off at 10-20-45-70-95 turns and run to switch lever. By varying Ant. cond. and taps U control Antenna selectivity. For more selectivity put Xtal on 45.

21-4. SIMPLE ALL-WAVE DX'er.



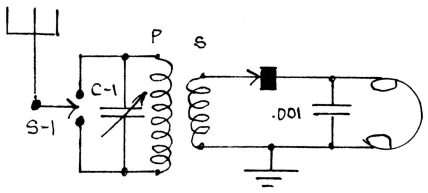
Paul Jenkins, Tenn., reports 750 miles daytime on 15 mc. and 2100 miles at night with nearest BC station 30 mi. No coil data but we suggest 100 turns #22 DCC tapped every 10, on 2 x 4½" Cello. form. We have added the Ant. cond. for more selectivity. Note there are 2 sets of switches, each with 10 switch points.

21-5. VAR. LOOPSTICK COUPLING.



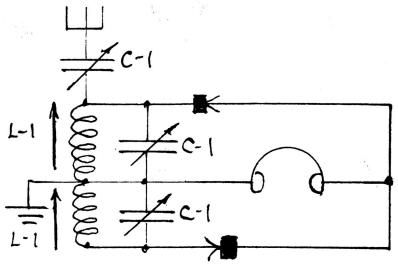
Wesley Lingley, R.I., has good results with a small set using 2 loopsticks. One is for tuning, while the other is for Antenna coupling. Degree of coupling is controlled by sw. lever. Angle of Ant. loopstick coupling may sharpen up reception.

21-6. REVERSED POLARITY CIRCUIT.



E.C.Hoffman, Minn., says this circuit produces amazing results for him. Wind pri. of 75 Ts #22 DCC on 2" x 4½" Cello. form. Put a pc. of wrapping paper over the windihg. Over this, wind 40 Ts same wire for secondary. SPDT toggle switch changes polarity for best results. Note ground is on the secondary circuit.

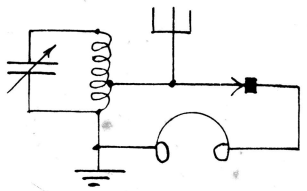
21-7. DOUBLE LOOPSTICK XTAL.



Bart McMurray, Calif., submitted this circuit that works good. The Ant. condenser helps in selectivity. Note the circuit on the ground end aids in boosting the signal of the Antenna. Be sure to reverse crystals.

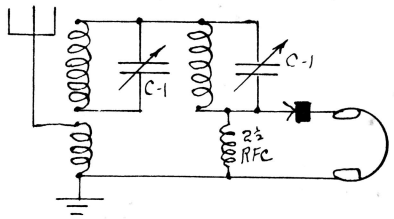
21-8. HIGH FREQUENCY XTAL SET.

H.S.Davis, Calif., sends in a pet Hi-F circuit that has worked good with him. Coil is 8 Ts #14 tinned busbar wound on ½" dia. form, and slightly spread apart.



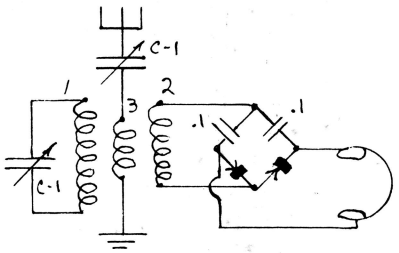
Take a tap at the 2nd turn. The tuning condenser may be a 35 - 50 mmfd. or what have you. Xtal is a 1N64, 1N295 or CK-706-A. Other types may be tried. About the simplest circuit one can get.

21-9. FREE TUNING XTAL CIRCUIT.



Mr. Ketterson, La., says this circuit cuts out all locals and no QRM from any. We call if Free Tuning because the two tank circuits are floating, with no Xtal or impedance across them. On a 2" x 4½" Cello. form wind 75 Ts #22 DCC. Next to this wind 15 Ts same wire for Ant. coil. Wind a separate coil the same as other, except no primary. We added the RF choke for better operation. Keep the coils separated.

21-10. FULL WAVE CRYSTAL SET.



Roy Davenport, Calif., claims very good results with this set. Besides being full-wave, it is also a voltage doubler, so you should increase the volume in phones. This principle may be applied to any Xtal set. You may get our #9 Xtal coil, or make it as follows: On a 2" x 4½" Cello. form wind (1) of 75 Ts #22 DCC. Place some wrapping paper over this and wind (2) 30 Ts same. More paper and (3) 15 Ts same. Diodes 1N35, but any type OK.

STANDARD PARTS LIST.

C-1. .00035 Variable condenser.
C-2. 2-gang .00035 var. cond.
C-3. .0001 mica condenser.
L-1. Standard BC Loopstick.
S-1. Switch lever and points.
S-2. SPDT Toggle switch.

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